Sediment Reworking/Tilling

Objective: To break up oily sediments and surface oil deposits, increasing their surface area, and mixing

deeper subsurface oil layers, thus enhancing the rate of degradation through aeration.

Description: The oiled sediments are roto-tilled, disked, or otherwise mixed using mechanical equipment

or manual tools. Along beaches, oiled sediments may also be pushed to the water's edge to enhance natural cleanup by wave activity (surf washing). The process may be aided with

high-volume flushing of gravel.

Applicable Habitat Types: On any sedimentary substrate that can support mechanical equipment or foot traffic and

hand tilling.

When to Use: On sand to gravel beaches with subsurface oil, where sediment removal is not feasible (due

to erosion or disposal problems). On sand beaches where the sediment is stained or lightly

oiled. Appropriate for sites where the oil is stranded above the normal high waterline.

Biological Constraints: Avoid use on shores near sensitive wildlife habitats, such as fish-spawning areas or bird-

nesting or concentration areas because of the potential for release of oil and oiled sediments

into adjacent bodies of water. Should not be used in clam beds.

Environmental Effects: Due to the mixing of oil into sediments, this method could further expose organisms that

live below the original layer of oil. Repeated reworking could delay re-establishing of these

organisms. Refloated oil from treated sites could contaminate adjacent areas.

Waste Generation: None.